

## Miscellaneous Notes on the East-Asiatic Uredinales with Special Reference to the Japanese Species (III)

By

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46. **Pucciniastrum Clemensiæ** ARTHUR et CUMMINS in Philippine Jour. Sci. LXI, p. 479 & pl. III, fig. 6, 1936.

Hab. On *Vitex Negundo* L. (*Ninjinboku*). *Formosa* :—Prov. Taichû : Rengechi (Nov. 2, 1932, Y. HASHIOKA).

This species is new to Japan. It was newly described by ARTHUR and CUMMINS as a species of the genus *Pucciniastrum*, based upon a specimen of the uredostage on *Vitex Negundo* from the Philippines. The Formosan specimen has also its uredostage only.

47. **Thekopsora Myrtillina** KARSTEN, Myc. Fenn. IV, p. 59, 1879.

Hab. On *Hugeria japonica* NAKAI (*Akushiba*). *Honshû* :—Prov. Hôki : Mt. Daisen (Aug. 9, 1936, HIRATSUKA, f.). *Hugeria japonica* is a new host plant for the present fungus.

48. **Melampsora Yoshinagai** HENNINGS in Hedwigia XLII, p. (108), 1903.

Hab. On *Wikstrœmia trichotoma* MAK. (*Ki-gampi*). *Kiushû* :—Prov. Chikugo : Aburayama near Fukuoka (April 1, 1937, Y. MAKI).

The present species is new to Kiushû, and *Wikstrœmia trichotoma* is a new host plant for this species.

49. **Chrysomyxa Tsugæ** HIRATSUKA, f. in Jour. Jap. Bot. XIII, p. 246, 1937.

Had. On *Tsuga Sieboldii* CARR. (*Tsuga*). *Shikoku* :—Prov. Tosa : Oreai-

yama (Taishô-mura) (June 4, 1937, T. WADA). New to Shikoku !

50. **Crossopora Sawadæ** (SYDOW) ARTHUR et CUMMINS in Philippine Jour. Sci. LXI, p. 473 & pl. IV, fig. 1, 1936.

Syn. *Cronartium Sawadæ* SYDOW in Ann. Myc. XII, p. 109, 1914. (FUJIKURO in Transact. Nat. Hist. Soc. Formosa, no. 19, p. 10, 1914 ; HIRATSUKA, f. & HASHIOKA in Bot. Mag. Tokyo, LI, p. 42, 1937 ; SAWADA, Descript. Cat. Formosan Fung. I, p. 347, 1919).

Hab. On *Glochidion album* MÜLL.-ARG. (*Ke-kanko-no-ki*). Formosa :—Prov. Tainan : Kwanshirei (Oct. 30, 1908, K. SAWADA, type !).

51. **Puccinosira Clemensiæ** ARTHUR et CUMMINS in Philippine Jour. Sci. LXI, p. 465 & pl. II, fig. 2, 1936.

Hab. On *Berberis Kawakamii* HAYATA (*Kuromi-no-hebinoborazu*). Formosa :—Prov. Taihoku : Kirettoi (Mt. Nanko) (July 23, 1934, Y. HASHIOKA). Prov. Shinchiku : Mt. Izawa (Taiha Mts.) (July 14, 1935, Y. HASHIOKA).

This species is a new addition to the mycological flora of Japan, and *Berberis Kawakamii* is a new host plant for the present fungus.

52. **Pileolaria Pistaciæ** TAI et WEI in Sinensia, IV, p. 108 & text-fig. 39, 1933.

Syn. *Pileolaria Clemensiæ* CUMMINS in Ann. Myc. XXXV, p. 103 & text-fig. 5 (p. 100), 1937. (*Syn. nov.*)

Hab. On *Pistacia chinensis* BUNGE (*Ranshinboku*). Formosa :—Prov. Takao : Kuraru (S. SUZUKI).

53. **Maravalia achroa** (SYDOW) ARTHUR et CUMMINS in Philippine Jour. Sci. LXI, p. 468 & pl. II, fig. 5, 1936.

Syn. *Uromyces achrous* SYDOW in Ann. Myc. V, p. 491, 1907.

Hab. On *Dalbergia sisso* ROXB. (*Shisso-no-ki*) (*cult.*). Formosa :—Prov. Tainan. Prov. Taichû. Prov. Taitô. Prov. Takao.

This species is a new addition to the mycological flora of Japan. Through the kindness of Mr. Y. HASHIOKA, the writer has had an opportunity to examine two specimens of the present fungus which were preserved in the Phytopathological Divinity of Department of Agriculture, Government Research

Institute, Formosa. One of the specimens was collected in the province of Tainan\* in May, 1937, and the other was obtained from the province of Takao\* in May, 1937. According to the kind suggestion of Mr. Tsutome MIYAKE, Chief Plant Pathologist, Department of Agriculture, Government Research Institute, Formosa, the present fungus abundantly occurs in the southern provinces; Taichû, Tainan, Taitô and Takao, and a rust disease caused by this fungus has seriously damaged the cultivation of *Dalbergia sisso*.

54. **Uromyces Genistæ-tinctoriæ** (PERS.) WINTER in Pilze Deutschl. I, p. 149, 1884.

Hab. On *Caragana Chamlagu* LAM. (*Mure-suzume*)(cult.). Honshû:—Prov. Inaba: Tottori (Sept. 16, 1937, HIRATSUKA, f.). New to Honshû!

55. **Puccinia Lapsanæ** (COOKE) FÜCKEL, Symb. Myc. p. 53, 1870.

Hab. On *Lapsana humilis* MAK. (*Yabu-tabirako*). Formosa:—Prov. Taihoku: Urai (Oct. 16, 1932, Y. HASHIOKA). New to Formosa!

56. **Puccinia liberta** KERN in Mycologia, XI, p. 142, 1919.

Syn. *Puccinia Eleocharidis* (not ARTHUR) (FUJIKURO in Bot. Mag. Tokyo, XXVIII, p. (423), 1914; Transact. Nat. Hist. Soc. Formosa, no. 19, p. 4, 1914; Jour. Pl. Protect. VI, p. 446, 1919; SAWADA, Descript. Cat. Formosan Fung. IV, p. 54, 1928).

Hab. On *Heleocharis plantaginea* BOECK. (*Eleocharis plantaginea* R. BR.) (*Kuro-guwai*). Formosa:—Prov. Taichû: Suisha (Oct. 31, 1907, R. SUZUKI).

This species distinctly differs from *Puccinia Eleocharidis* ARTHUR in having much smaller uredospores.

57. **Puccinia Caricis-siderostictæ** DIETEL in Ann. Myc. VI, p. 224, 1908.

Hab. On *Carex siderosticta* HANCE. (*Taganesô*). Kiushû:—Prov. Buzen: Mt. Hikosan (Nov. 1, 1936, E. TOBINAGA). New to Kiushû!

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\* Locality of its collection was not recorded.

58. **Puccinia Lophatheri** (SYDOW) HIRATSUKA, f. *comb. nov.*

Syn. *Diorchidium Lophatheri* SYDOW in Ann. Myc. XII, p. 107, 1914. (FUJIKURO in Transact. Nat. Hist. Soc. Formosa, no. 19, p. 7, 1914; HIRATSUKA, f. & HASHIOKA in Transact. Tottori Soc. Agric. Sci. IV, p. 161, 1935; SAWADA, Descript. Cat. Formosan Fung. I, p. 375, 1919).

Hab. On *Lophatherum gracile* BRONG. var. *elatum* HACK. (*Sasagaya*).

*Loochoo* :—Nago-machi (Oct. 20, 1907, T. MIYAGI). *Formosa* :—Prov. Taihoku: Taihoku (Y. FUJIKURO, *type* !); Urai (Oct. 16, 1932, Y. HASHIOKA); Shinten (Dec. 4, 1932, Y. HASHIOKA).

59. **Puccinia Ischæmi** DIETEL in Ann. Myc. XV, p. 493, 1917. (HIRATSUKA, f. & YOSHINAGA in Mem. Tottori Agric. Coll. IV, p. 311, 1935; YOSHINAGA & HIRATSUKA, f. in Bot. Mag. Tokyo, XLIV, p. 646, 1930).

Hab. On *Zoysia macrostachya* FRANCH. et SAV. (Not *Ischæmum muticum* L.) (*Oni-shiba*). *Honshû* :—Prov. Inaba : Hamasaka near Tottori (Aug. 20, 1937, HIRATSUKA, f.). *Shikoku* :—Prov. Tosa : Misato-mura (Dec. 7, 1913, T. YOSHINAGA, *type* !); Tôchi-mura (Dec. 12, 1929, T. YOSHINAGA).

In the original description of the present species and its previous records made by YOSHINAGA and the writer, its host plant has been erroneously recorded as *Ischæmum muticum* L.

60. **Puccinia diplachnicola** DIETEL in Ann. Myc. VIII, p. 308, 1910.

Hab. On *Diplachne serotina* LINK var. *aristata* HACK. (*Chôsen-gariyasu*). *Kiushû* :—Prov. Chikugo : Miike-machi (Oct. 7, 1935, E. TOBINAGA). New to *Kiushû* !

61. **Puccinia Cynodontis** LACROIX in DESMAZIÈRES, Pl. Crypt. Franc. II, no. 655, 1859.

Hab. On *Cynodon Dactylon* PERS. (*Gyôgi-shiba*). *Kiushû* :—Prov. Chikuzen : Kotake-machi (Oct. 27, 1936, E. TOBINAGA). Prov. Chikugo : Miike-machi (June 2, 1935, E. TOBINAGA); Ômuta-shi (Feb. 28, 1935, E. TOBINAGA). Prov. Higo : Toyomizu-mura (March 8, 1935, E. TOBINAGA); Ariake-mura (July 18, 1935, E. TOBINAGA). New to *Kiushû* !

62. **Puccinia Polliniæ-quadrinervis** DIETEL in ENGLER. Bot. Jahrb. XXXII. p. 48, 1902.

Hab. On *Eulalia quadrinervis* O. KUNTZE (*Pollinia quadrinervis* HACK.) (*Umuke-modoki*). Honshû :—Prov. Kii: Seto-Kanayama-mura (Dec. 23, 1930, HIRATSUKA, f.). New to Honshû !

63. **Puccinia himalensis** (BARCL.) DIETEL in ENGLER-PRANTL, Natürl. Pflanzenfam. I, 1. Abt.\*\*, p. 63, 1897.

Hab. On *Brachypodium japonicum* MIQ. (*Yama-kamojigusa*). Kiushû :—Prov. Higo : Mt. Ichibusa (Jan. 1, 1936, K. IDE). New to Kiushû !

64. **Aecidium niitakense** HIRATSUKA, f. nov. spec.

Spermogoniis plerumque epiphyllis, paucis aggregatis, primo rufo-melleis, tandem subatris, subepidermalibus, minutis, 100~150  $\mu$  diam.

Aecidiis hypophyllis, paucis (2~24) in greges minulos 1~5 mm diam., breviter cylindraceis, 200~280  $\mu$  diam., margine albo subtiliter firme conjunctis, irregularibus, plerumque subrhomboideis, 30~48  $\times$  20~33  $\mu$ , pariete exteriori verrucoso-striato, 6~10  $\mu$  crasso, interiore dense grosseque verrucoso, usque 6  $\mu$  crasso; aecidiosporis globosis, subglobosis vel obovatis, dense verruculosi, subhyalinis, 18~27  $\times$  15~23  $\mu$ ; episporio 1~1.5  $\mu$  crasso.

Hab. On *Berberis morrisonensis* HAYATA (*Niitaka-hebinoborazu*). *Formosa* :—Prov. Taihoku : Bunakkei (Mt. Nanko) (July 28, 1934, Y. HASHIOKA, no. 739). Prov. Shinhiku : Mt. Taiha (July 16, 1935, Y. HASHIOKA, no. 945). Prov. Tainan : Shuzan (Mt. Niitaka) (July 10, 1933, Y. HASHIOKA, no. 465, type !).

The present species is nearly related to *Aecidium aridum* DIET. et NEG., from which it distinctly differs by smaller spores.

65. **Aecidium Meliosmæ-myrianthæ** HENNINGS et SHIRAI in HENNINGS in ENGL. Bot. Jahrb. XXVIII, p. 264, 1900.

Hab. On *Meliosma myriantha* SIEB. et ZUCC. (*Awabuki*). *Shikoku* :—Prov. Tosa : Higashitoyonaga-mura (May 31, 1937, T. YOSHINAGA). New to Shikoku !

66. **Aecidium Phyllanthi** HENNINGS in ENGL. Bot. Jahrb. XV, p. 6, 1892.

Hab. On *Phyllanthus flexuosus* MÜLL-ARG. (*Koban-no-ki*). *Kiushû*:—Prov. Chikuzen: Seto-mura (July 20, 1936, MAKI). Prov. Ōsumi: Mikata-mura (Amami-ōshima) (Feb. 5, 1935, T. YASU). Prov. Satsuma: Nishi-Takeda-mura (June 7, 1936, K. IDE). New to *Kiushû*!

67. **Aecidium Plectranthi** BARCLAY in Jour. Asiatic Soc. Bengal, LIX, pt. 2, p. 104, 1890.

Hab. On *Plectranthus inflexus* VAHL. (*Yama-hakawa*). *Kiushû*:—Prov. Satsuma: Mt. Eboshi-dake (May 11, 1930, K. IDE). New to *Kiushû*!

68. **Aecidium Scutellariæ-indicæ** DIETEL in Ann. Myc. VI, p. 229, 1908.

Hab. On *Scutellaria indica* L. var. *japonica* FRANCH. et SAV. (*Tatsunamisō*). *Kiushû*:—Prov. Higo: Fumoto-mura (May 17, 1936, E. TOBINAGA). New to *Kiushû*!

69. **Aecidium Dispori** DIETEL in ENGL. Bot. Jahrb. XXVII, p. 571, 1899.

Hab. On *Disporum Kawakamii* HAYATA (*Taiwan-chigozasa*). *Formosa*:—Prov. Taihoku: Piyanan (June 30, 1936, Y. HASHIOKA). Prov. Shinchiku: Shanpin (July 12, 1935, Y. HASHIOKA). New to *Formosa*!

70. **Uredo Alocasiæ** SYDOW, Monogr. Ured. IV, p. 521, 1924.

Hab. On *Alocasia macrorrhiza* SCHOTT. (*Kuwazu-imo*). *Kiushû*:—Prov. Hiuga: Aoshima near Miyazaki-shi (May 22, 1932, S. ENDŌ). New to *Kiushû*!

(To be continued)